



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,651	06/28/2001	Izuru Nakai	P21198	2034

7055 7590 03/19/2003

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

TRAN, LEN

ART UNIT

PAPER NUMBER

1725

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS7

Office Action Summary

Application No.

09/892,651

Applicant(s)

NAKAI ET AL.

Examiner

Len Tran

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3, 7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art (figure 7), and further in view of Welch et al (US 5,914,978).

As to claims 1, 7 and 9-11, Applicant admitted prior art, figure 7, discloses a laser apparatus comprising of a laser oscillator, an f (theta) lens for converging the emitted laser light onto a workpiece, a galvanometer.

Art Unit: 1725

However, applicant admitted prior art fails to show a wavelength selector, including a diffraction grating, a polarizer, interposed between the laser oscillator and the f (theta) lens.

Welch et al disclose a wavelength selector, including a diffraction grating, polarizer, and light emitted through a prism (figure 23, figure 12) for the purpose of singling out a desired wavelength.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a wavelength selector as taught by Welch et al, in Applicant's admitted prior art in order to achieve the desired wavelength.

As to claim 3, the limitation is a process limitation. However, the apparatus of Welch et al is capable of performing the claimed process of transmitting the laser a plurality of times through the prism.

4. Claim 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art (figure 7), and further in view of Welch et al (US 5,914,978), in view of Scheps et al (US 5,528,612).

Applicant admitted prior art and Welch et al disclose the claimed invention above in paragraph 5, but fail to teach a prism being in between the two reflecting mirrors.

However, Scheps et al disclose a prism arranged in between two reflecting mirrors (figure 1) to provide a spatially separate path for each of the wavelengths and to determine the specific laser wavelengths produced simultaneously by the laser.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a prism located between reflecting mirrors as taught by Scheps et al, in Applicant's admitted prior art and Welch et al in order to separate the wavelengths.

In addition, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a plurality of prism, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis paper Co. v. Bemis Co., 193 USPQ 8.

Allowable Subject Matter

5. Claim 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior arts of record fail to teach plurality of prisms disposed between a pair of opposed reflection mirrors and wherein the lasers are emitted through the prism a plurality of times using the reflection mirrors.

Response to Arguments

6. Applicant's arguments filed 2/14/03 have been fully considered but they are not persuasive.

Art Unit: 1725

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Applicant admitted prior art, figure 7, discloses a laser apparatus comprising of a laser oscillator, an f (theta) lens for converging the emitted laser light onto a workpiece, a galvanometer, but fails to show a wavelength selector, including a diffraction grating, a polarizer, interposed between the laser oscillator and the f (theta) lens. Welch et al disclose a wavelength selector, including a diffraction grating, polarizer, and light emitted through a prism (figure 23, figure 12) for the purpose of singling out a desired wavelength. Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a wavelength selector as taught by Welch et al, in Applicant's admitted prior art in order to achieve the desired wavelength.

Furthermore, Applicant's argument regarding to the "wavelength selector including a shield provided with a pin hole to pass only a light ray having a specified wavelength" is not in commensurate with the scope of the claims, since such limitation is not claimed. Therefore claims 1, 3-7, and 9-12 remain rejected.

Art Unit: 1725

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Len Tran whose telephone number is (703)605-1175. The examiner can normally be reached on M-F, 8:30 - 5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3602 for regular communications and (703)305-3602 for After Final communications.

Art Unit: 1725

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Len Tran
Examiner
Art Unit 1725

LT
March 11, 2003



M. ALEXANDRA ELVE
PRIMARY EXAMINER